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INFORMATION AND ANALYSIS

MASSACHUSETTS HOSPITAL PROFILES

INDUSTRY OVERVIEW

DATA THROUGH FISCAL YEAR 2013

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ABOUT THIS BRIEF

This brief provides an overview of the Massachusetts hospital industry in fiscal year (FY) 2013 and includes statewide comparative data on Massachusetts hospitals. This brief and accompanying individual hospital profiles, databook, and chartbook update CHIA's March 2014 publication of *Massachusetts Hospital Profiles: Data through Fiscal Year 2012*. In addition to updated financial information for each of the acute and privately-operated non-acute hospitals in the Commonwealth, clinical quality information is included for the first time in the individual acute hospital profiles, as is a section that reports on multi-acute hospital systems.[1]

For detailed descriptions of the metrics mentioned in this brief, please see the Technical Appendix.

Overview of the Massachusetts Hospital Industry

In 2013, there were 95 hospitals in Massachusetts: 68 acute facilities and 27 non-acute facilities.[2] Two-thirds of the hospitals (62 hospitals) in the Commonwealth are affiliated with a multi-hospital system and owned by a parent organization. Sixty-three percent of Massachusetts hospitals (61 hospitals) are non-profit organizations, and there is one municipally-owned acute hospital (Cambridge Health Alliance).

For this publication, CHIA assigned each acute hospital to a cohort of similar hospitals: academic medical centers (AMCs), teaching hospitals, community hospitals, and community-Disproportionate Share Hospitals (DSH).[3,4] For non-acute hospitals, the cohorts are defined by services provided, and include: psychiatric, rehabilitation, and chronic care. Specialty acute and non-acute hospitals are not identified with a distinct cohort. While CHIA has included profiles for both acute and non-acute hospitals, the remainder of this brief will focus primarily on acute hospitals.

Hospital Utilization

Massachusetts hospitals continue to experience a decline in per capita inpatient discharges. Between FY2009 and FY2013, inpatient discharges dropped 6%, with a decline between FY2012 and FY2013 of 3%, the steepest decline in this five year period. Among the cohorts, community hospitals experienced the largest decline in total discharges, of 7%, between FY2009 and FY2013. In FY2013, AMCs and teaching hospitals, which are also among the largest hospitals in Massachusetts, accounted for 45% of total statewide discharges, consistent with FY2012.

Hospital occupancy rate measures the percent of a hospital's inpatient staffed beds that have been occupied over the course of a year. Between FY2012 and FY2013, the median statewide occupancy rate increased slightly from 65% to 66%. AMCs had the highest median occupancy rate at 84% in FY2013, while community and community-DSH hospitals had the lowest at 64%.

1 This brief and the profiles do not include data for state-operated non-acute hospitals, as data for these hospitals were not available at the time of publication. Shriners Hospitals for Children were also not included in these analyses.

2 Subsequent to the FY2013 reporting period, North Adams Regional Hospital and Quincy Medical Center closed.

3 A Disproportionate Share Hospital (DSH) is defined in M.G.L. c. 6D, Section 1 as a hospital with a minimum of 63% of patient charges attributed to Medicare, Medicaid, and other government payers, including Commonwealth Care and the Health Safety Net.

4 For definitions of each cohort and hospitals assigned to each cohort, see the Technical Appendix. Note that comparisons of cohort performance between fiscal years reflect FY2013 cohort assignments.

Between FY2009 and FY2013, median growth in acute hospital outpatient visits remained relatively flat, increasing by only 0.6%. Growth rates varied by cohort, however, with AMCs experiencing the highest increase at 4.7%, followed by community hospitals at 3.6%, and teaching hospitals at 2.2%. The community-DSH hospital cohort was the only cohort to experience a decrease in outpatient visits during this period, a 3.1% decline. This decrease, along with the decrease in inpatient volume at community-DSH hospitals between FY2009 and FY2013, indicates that patient volume from these hospitals may be shifting to other hospitals.

Hospital Payer Mix and Relative Prices

Public payers remain the largest source of revenue for Massachusetts hospitals. Statewide, in FY2013, federal and state payers, including Medicare, Medicaid, and Commonwealth Care, comprised 63% of hospital gross revenue, while commercial and other payers accounted for the remaining 37%. Community-DSH hospitals, as the cohort category indicates, are most reliant on public payers, which on average accounted for 68% of their gross revenues. Community hospitals had the lowest average public payer mix among the cohorts at 55%, followed by AMCs at 60%.

AMCs continue to be paid substantially higher prices by commercial payers relative to the teaching and community hospital cohorts even when comparing similar services. Community-DSH hospitals, which have the highest public payer mix among the cohorts, have the lowest average composite relative price percentile, at the 43rd percentile of the cohorts in 2013. In comparison, AMCs were at the 75th percentile.

Hospital Costs & Revenue

Between FY2009 and FY2013, the statewide average inpatient revenue per discharge increased by 8.4%, while the statewide average inpatient cost per discharge increased by 3.3%.[5]

AMCs had the highest average cost and revenue per discharge among the cohorts every year between FY2009 and FY2013.[6] AMC cost per discharge was approximately 10.7% higher than the statewide average in FY2012 and increased to 14% higher in FY2013. AMC revenue per discharge remained approximately 20% higher than the statewide average in FY2012 and FY2013.

Statewide, hospital outpatient revenue increased in the aggregate by 6.2% between FY2009 and FY2013. All of the hospital cohorts experienced an increase during this period; AMCs had the largest growth at 9.7%, and teaching hospitals had the smallest growth at 4.3%.

Hospital Financial Performance

Hospital financial performance generally improved between FY2012 and FY2013. The median statewide acute hospital total margin, which measures a hospital's overall profitability, increased from 3.4% in FY2012 to 4.1% in FY2013. Teaching hospitals had the highest median total margin in FY2013 at 7.6%, while community hospitals had the lowest at 2.4%. The median statewide acute hospital operating margin, a more focused measure that reflects only the hospital's profit or loss from patient care activities, remained relatively constant between FY2012 and FY2013, at 2.2% and 2.1%, respectively. Again, teaching hospitals had the highest median operating margin in FY2013 at 3.6%, while community hospitals had the lowest at 1.6%.

5 Discharges represent case mix-adjusted discharges (CMADs). To enable a more standardized comparison among hospitals, the average cost per CMAD was adjusted to exclude direct medical education costs and physician compensation costs that may be incurred at some hospitals. Statewide figures exclude specialty hospitals.

6 Ibid.

Multi-Acute Hospital System Financial Performance

Data from the most recent fiscal year available to CHIA shows that the nine multi-acute hospital systems profiled in this publication generated over $21 billion in operating revenue, and all but one generated a profit. While acute hospitals accounted for a sizeable portion of revenue within each system, each system contained a variety of other organizations. Some included non-acute hospitals, physician organizations, and health plans, among other types of entities. The specific types of organizations within each system are displayed on the individual system profiles included in this publication.

Quality of Care

The quality measures included in the individual acute hospital profiles are derived from the Commonwealth's Standard Quality Measure Set (SQMS). The selected indicators are hospital-specific measures based on information that hospitals self-report to CHIA and other entities, including the federal Centers for Medicare and Medicaid Services (CMS) and The Leapfrog Group. These measures present hospital performance in four areas: patient safety, patient experience, care practices, and obstetric care.

The Patient Safety Composite (PSI 90) is a summary of 11 Patient Safety Indicators (PSIs) that measure adverse events for various procedures. In 2011, 2012, and 2013, Massachusetts acute hospitals have performed better than (i.e. below) the national average score of 1.0. Statewide, the average complication rate declined between 2011 and 2013 from 0.92 to 0.74.

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey measures patient perspectives on key aspects of their care. Overall, patients' ratings of their experience in Massachusetts acute hospitals were in line with the national average in 2011 and 2012. A notable exception is the measure of hospital noise levels, which was eight and nine points below (i.e. worse than) the national averages in 2011 and 2012, respectively.

The percentage of Medicare Fee-For-Service (ages 65+) admissions to Massachusetts acute hospitals that resulted in an unplanned readmission for any cause within 30 days of discharge ranged from 13% at the highest performing hospital to 19% at the lowest performing hospital in 2012,[7] while the national average was 16%.[8] Twenty-three of the 63 Massachusetts hospitals included in this analysis had rates that were better than (i.e. at or below) the national average in 2012.

Early elective deliveries are non-medically necessary cesarean or induced deliveries prior to 39 weeks gestation. Over a three-year period, the range of early elective deliveries between Massachusetts' highest and lowest performing acute hospitals decreased substantially, from 38 percentage points in 2011-2012 to five percentage points in 2012-2013. The number of acute hospitals in Massachusetts with no early elective deliveries increased from 6 to 20, and the Massachusetts median of 0.9% was better than the national median of 2.5% in 2012-2013. Hospitals in many states have improved performance on this measure, but The Leapfrog Group has identified Massachusetts as a standout performer.[9]

7 This refers to the Medicare reporting period, July 2011-June 2012.

8 CMS Hospital Compare, July 2011-June 2012. Rates are risk-adjusted and include only unplanned readmissions.

9 The Leapfrog Group. Dramatic Decline in Dangerous Early Elective Deliveries. Available from: http://www.leapfroggroup.org/policy_leadership/leapfrog_news/5164214 (Accessed January 9, 2015).